

Dr. Sterett H. Mercer is a Professor of Special Education in the Educational and Counselling Psychology and Special Education department of UBC's Faculty of Education. His research focuses on methods to identify students in need of academic assistance and to monitor the effectiveness of academic interventions. In particular, his recent work has involved the development and evaluation of open-source automated text evaluation tools to improve the feasibility of academic screening in written expression. He has co-authored 65 articles in journals such as *Educational Researcher*, *Exceptional Children*, *Journal of School Psychology*, *Psychological Assessment*, *Prevention Science*, *Learning Disability Quarterly*, *Remedial and Special Education*, and the *Journal of Positive Behavior Interventions*. His research has been funded by the Social Sciences and Humanities Research Council (Canada), the U.S. Department of Education's Institute of Education Sciences, and the U.S. National Institutes of Health (National Institute on Minority Health and Health Disparities). Dr. Mercer was elected to membership in the Society for the Study of School Psychology in 2020 and has served in the Chris Spencer Foundation Professorship in Dyslexia from 2015-2021.

Thank you for considering my application for the Chris Spencer Foundation Professorship in Dyslexia. In describing my qualifications and vision for the Professorship, I will emphasize three aspects of the mandate for the position.

- Pursue a research program in the field of learning disabilities focusing on dyslexia and related reading and writing disabilities, through securing grant support and recruitment of graduate students.

My primary research area, curriculum-based measurement (CBM) and academic intervention, is directly related to learning disabilities. CBMs are brief, repeatable assessments of academic skills that can be used to (a) screen students at risk of developing dyslexia and related learning difficulties, (b) inform intervention development to address these difficulties, and (c) monitor student responsiveness to instruction and intervention. CBM and similar measures are critical elements of contemporary education models such as response-to-intervention that aim to more effectively serve students with or who are at risk for developing dyslexia and related disabilities.

My work in CBM has been conducted in partnership with the Learning Disabilities Society of Greater Vancouver (with financial support from a SSHRC Partnership Development Grant) and in collaboration with researchers in the United States (with financial support from the US Department of Education's Institute of Education Sciences). I currently have 10 published, peer-reviewed journal articles that have focused on the technical adequacy of decisions made with CBM in reading and written expression (3 articles on math), with several other manuscripts on this topic under review and in preparation. My current work in this area has focused on the use of automated text evaluation to efficiently analyze student writing to facilitate large scale screening and progress monitoring of academic skills. Although work in this area has been delayed by Covid-19, I will have a large project running in the upcoming academic year on automated text evaluation for screening (in multiple schools of the Catholic Independent Schools of Vancouver Archdiocese; also schools in the Houston, Texas, area through my US-based research collaborators), and I have an emerging partnership with the Cowichan Valley School District (Duncan, BC) to investigate the use of automated text evaluation as part of their ongoing District-Wide Writing Assessment process.

My work in academic interventions has focused on theory-based evaluation of literacy interventions. This focus has emerged from a merger of my measurement-related work in CBM combined with graduate student research projects on academic interventions. I have successfully supervised 10 completed PhD and MA thesis projects that have evaluated reading or writing interventions, and I am currently supervising one MA thesis project and one PhD dissertation evaluating reading or writing interventions. The majority of the projects have involved the development or refinement of academic interventions to test theory related to academic skill development, and all projects have involved direct provision of academic interventions to students with academic difficulties in local schools. In addition to directly benefitting the academic skills of students participating in the interventions, these projects

have provided intensive training in academic interventions for the graduate student researchers.

Nearly 100% of funds from my appointment to the professorship from 2015-2021 have been used to fund graduate student researchers conducting research projects on academic interventions, and I plan to continue to use 100% of funds for graduate student research assistantships if another professorship term is awarded. By combining the professorship's funds with funding from other sources, I am able to fund one student per year.

- Work with school communities to develop programs that will effectively meet the needs of children with dyslexia and related learning disabilities.

By allocating a large proportion of the professorship's \$12,000 per year to graduate student funding to support research on literacy interventions, the 'collaboration with school communities' portion of the mandate would be supported. All of the MA and PhD theses on reading or writing interventions I have supervised have involved the provision of academic interventions, at no cost, to students in local schools. At the conclusion of the studies, we have presented the intervention procedures and findings to interested school staff and also shared intervention materials with the schools.

I routinely collaborate with school communities on topics related to the mandate of the professorship. For example, I served on the board of the Learning Disabilities Society of Greater Vancouver for multiple years during prior terms of the professorship and also partnered with them on a SSHRC Partnership Develop Grant that is nearing completion. I also have had a slowly building research partnership with the Cowichan Valley School District on the use of automated text evaluation as part of their District-Wide Write process that will include development of screening and progress monitoring procedures in addition to local norms for decision making that will be useful in the district and beyond (there currently are no BC norms for performance on these types of tasks). Although development is ongoing, I have developed and released an open-source R package (<https://github.com/shmercercer/writealizer>) that implements the automated text evaluation models used in these partnerships and research projects.

- Adapt graduate courses and seminars to focus on the current state of research on dyslexia and related learning disabilities, support practicum placements that provide students with learning opportunities in the area of dyslexia and related learning disabilities.

In my ~10 years at UBC, I have taught 11 sections of EPSE 531: Data-Based Individualization of Academic Interventions for Learning Difficulties (formerly Curriculum-Based Assessment and Intervention). The course is required of all graduate students in School and Applied Child Psychology and a commonly-taken elective for Special Education students in the Learning Disabilities, Supporting Inclusive Education, and Behaviour Disorders concentrations. Course content is focused on screening, intervention planning, and progress monitoring for students with difficulties in reading, math, and written expression. Reading difficulties and dyslexia are emphasized in particular, and students are required to implement an academic intervention

(typically in the area of reading) while incorporating CBM to evaluate the effectiveness of the intervention. I have also taught two sections of EPSE 526: Seminar in Learning Disabilities, and hope to teach more sections of this course in the future. Content in both courses is firmly grounded in contemporary research in learning disabilities and is informed by my research in CBM and academic interventions. I am currently the coordinator of the Learning Disabilities concentration within the Special Education area of ECPS.

In addition to the practical intervention activities associated with EPSE 531, graduate students in my research lab receive extensive practical experience in implementing and evaluating academic interventions, primarily in the area of reading and written expression. In addition to conducting intervention work related to their own thesis projects, the majority of students in my lab serve as interventionists on my research projects as well as the other student thesis projects conducted in the lab.

Implementation and Evaluation Plan

As mentioned previously, if awarded the Professorship, I will use the \$12,000 per year to fund graduate student researchers on thesis projects that develop and test literacy interventions in local schools.

The impact of this funding would be assessed through the following:

1. Tracking the number of submitted and received grants (e.g., SSHRC Insight) in the area of reading interventions and assessment of written expression (WE-CBM).
2. Tracking the number of presentations and peer-reviewed publications related to the grant, as well as graduate student involvement in both.
3. Documenting the number of supervised MA and PhD theses related to reading and writing interventions, as well as my involvement as a committee member in theses on these topics.
4. Documentation of courses taught related to the mandate, as well as the number of students completing reading and writing interventions as part of course requirements.
5. Noting the number of community presentations given related to dyslexia and other reading and writing disabilities.